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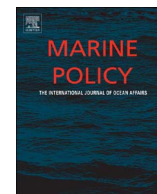
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# Justification theory for the analysis of the socio-cultural value of fish and fisheries: The case of Baltic salmon

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## ABSTRACT

The ecosystem approach to fisheries management requires ecosystems to be perceived in a holistic way, including the dynamics not only within an ecosystem but also between the ecosystem and society. This implies that people involved in decision-making processes should understand why fish and fisheries are important for society, that is, be aware of the socio-cultural values that people associate with fisheries. In this paper, the justification theory of Boltanski and Thévenot is applied to material collected through a literature review to identify socio-cultural values relating to Baltic salmon, and the potential of the approach for fisheries governance is discussed. The analysis demonstrates that fish resources can have multiple meanings to society. Justification theory is found useful for identifying socio-cultural values related to fisheries, since it suggests shifting attention from opposing interests to the common good. Agreeing on the common good is crucial for the legitimacy of governance. However, because the common good can be defined in multiple ways, these definitions have to be made transparent through empirical analysis so that they can be further deliberated, evaluated and agreed upon by governors, stakeholders and others involved.

## 1. Introduction

The importance of understanding socio-cultural values that stakeholders associate with fish resources, and incorporating them in decision-making is increasingly acknowledged [26,44,62]. Socio-cultural values have been defined in different ways, but in general they refer to conceptions of ‘good’ or ‘right’, that is, social ideas about means and ends worth pursuing or the estimated worth of a thing or place [17].

Values underpin both the content of management decisions, and the design of the institutions and procedures of a governance system for taking decisions [25]. According to Kooiman and Jentoft [25, p. 818], values ‘inspire those who govern how to think and make judgements about how the world works and how to act in particular situations’. However, usually values remain implicit, and when explicitly addressed, they seldom lead to anything concrete or practical [25]. Kooiman and Jentoft [25] classify values to the realm of meta-governance, which forms the basis of governance practices and their evaluation.

Calls for addressing values in governance have become more frequent alongside the consolidation of the ecosystem approach as the dominant paradigm in fisheries management. The approach requires perceiving ecosystems in a holistic way, including dynamics not only

within an ecosystem but also between the ecosystem and society [12,32,33]. In this context, in particular acknowledging the values of stakeholders and incorporating them into decision-making are deemed important [35,9]. In the context of the Common Fisheries Policy (CFP) of the European Union (EU), the need to address stakeholders’ values has been demonstrated by Linke and Jentoft [35] who have analysed the performance of Advisory Councils that provide stakeholder input for policy processes. According to them, current natural science and technical discussions have to be broadened to include moral and ethical considerations to establish environmental and social sustainability in the sector.

Taking stakeholders’ values into account is seen as a way of reinforcing the knowledge base of management, to facilitate trade-offs between objectives, and to enhance successful implementation of decisions [35,52,61]. Ignoring stakeholders’ values can hinder social acceptability of management activities, and lead to conflict and poor ecological outcomes [17]. Thus, taking decisions based on an identified set of values can improve the legitimacy of decisions, and, overall, enhance good governance [25]. Eliciting values from stakeholders, analysing them, and integrating them in policy processes is, however, a challenge that requires the development of scientific approaches [62,7].

Values relating to fish and fisheries have most often been addressed

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from the perspectives of ecology and economics [31,40]. In ecology, the value of a fish species is based on its importance for the maintenance of species diversity and the functioning of the ecosystem [72]. The ecological value is expressed through indicators, which track the abundance of a species or serve as proxies for ecosystem attributes like resilience to perturbation, or maintenance of critical functions [32]. In economics, the value of fish and fisheries relates to the benefits they provide to humans calculated in monetary terms by using, for example, market prices and contingent valuation methods [28,50,68].

In recent years, the ecological and economic values of fish and fisheries have often been explored in the framework of ecosystem services [15,29]. Ecosystem services refer to benefits that humans gain from ecosystems, and are often monetized to allow trade-offs in decision-making [65,8]. However, in particular cultural ecosystem services, that is, the non-material benefits that people obtain from ecosystems, have turned out to be difficult to monetize [7]. Klain and Chan [23] and Klain et al. [24] suggested empirical research for exploring interdependencies and connectivity between ecosystem services, the benefits they produce, and the values that humans attach to them, instead of taking these relationships as given. Furthermore, Urquhart and Acott [70] argued that understanding relationships between humans and marine ecosystems through narratives related to sense of place in addition to economic valuation is crucial for designing more equitable, sustainable and workable approaches to marine resource management.

Socio-cultural values have rarely been the focus of fisheries research. Song et al. [63] developed a set of 24 value types for exploring how values are represented in fisheries governance. Murray and D'anna [43] utilized the concept of the New Ecological Paradigm to understand values underlying aquaculture in research focusing on the perceived effects of shellfish aquaculture on well-being in a coastal community. MacDonald et al. [38] used Q-methodology to explore how members of a coastal community valued the ocean, seafood and their community.

Most studies dealing with environmental values assume that social values can be deduced by combining the values of individual people [22]. For example, the economic approaches measure the utility that an individual derives from a given ecosystem service, and then aggregates the result across all individuals, equally weighted [40]. Some other scholars, however, argue that deliberation in the public sphere is needed to articulate social values. A process where people listen to each other's arguments and use reasoned judgement to come to an agreement or decision could bring more democratic outcomes than analytical aggregation of individual preferences [22].

This paper introduces the justification theory of Boltanski and Thévenot [5,6] for analysing the ways in which stakeholders value fish resources and how these valuations underlie political decisions and disputes in fisheries management. Justification theory considers valuation to be crucial for social action and coordination, and policy as action towards the common good. The theory specifies multiple definitions of what is good for society and provides a yardstick for assessing how specific statements about nature and society meet those criteria. Thereby it represents a shift of focus from an aggregation of individual preferences to a deliberative process of valuation. The theory is applied to a Baltic salmon case study, based on a literature review. The aims of this paper are to explore how salmon-related values can be organized according to the theory and to discuss the potential of the theory in fisheries governance in terms of providing a structured tool for identifying values and facilitating deliberation on them.

The next section presents justification theory and discusses its potential for addressing the socio-cultural dimensions of fish and fisheries. The third section introduces the case study, the Baltic salmon fishery, and the fourth section applies justification theory to explore how Baltic salmon is valued in the research literature. In the fifth section the implications of the approach for fisheries governance are discussed. The article ends with brief conclusions.

## 2. Justification theory for the analysis of socio-cultural values

Justification theory is grounded on the idea that human action in relation to the environment entails valuation that frames the situation in both a cognitive and moral way [5,6]. According to the theory, people justify their actions, to themselves and to others, by referring to a common good that benefits all. Similarly, other people assess the appropriateness of these actions by using the common good as an evaluative standpoint. The common good is defined through multiple orders of worth, each of which integrates the material environment in a specific way, expresses a sense of what is fair, and thus legitimates action. The orders of worth are perceived as relatively stable historical concepts: their relative importance may change over time, and new ways of defining the common good may emerge [5,6].

Today, there are at least seven definitions of the common good that both experts and lay people refer to when justifying actions [5,6,66]. 1. Civic worth reflects solidarity, equality and common welfare. Worthy objects are rights and welfare policies and worthy subjects are citizens. 2. Green worth respects nature in its own right and considers environmental conservation to advance the general good of humanity. Worthy objects are ecosystems and worthy subjects fit their way of life to the objectives of nature conservation. 3. Domestic worth builds on traditions, hierarchies and generations, and is oriented towards the preservation of the customary past. Worthy objects include heritage and worthy subjects are elders. 4. Inspirational worth is based on people's immediate relationship with the environment. Worthy objects are emotional and unique and worthy subjects are visionaries. 5. Worth of fame is a result of other people's opinion measured by signs of public esteem. Worthy objects are popular and worthy subjects are famous and convincing. 6. Market worth is evaluated based on price or cost and measured in money. Worthy objects are market goods and services and worthy subjects are buyers and sellers. 7. Industrial worth is based on efficiency, which can be measured on a scale of professional capabilities. Worthy objects are resources and materials and worthy subjects are experts.

Justification theory provides theoretical tools for analysing the social origins of environmental decisions and related conflicts. The 'socialness' of this approach lies in its orientation towards the common good as well as the need to justify arguments and actions to others, while conflicts can be located to the criteria or definition of the common good. If a conflict is located within an order of worth, the conflicting parties agree on valuation criteria (e.g. the importance of conserving wild salmon) but disagree on whether the criteria is met in the situation at hand (e.g. status of population). When the conflict is located between the orders of worth, the parties disagree on which valuation criteria to apply in the first place (e.g. the importance of Baltic salmon as part of biodiversity versus the importance of traditional fishing livelihoods). However, the theory also points out possible ways of reaching agreement. One way out of the conflict is to have one principle that dominates over the others. This implies that one party manages to convince the others about the primacy of a certain valuation (e.g. that conserving the wild salmon stocks is the only way to maintain fishing livelihoods). Another option is that the conflicting valuations are reconciled into a compromise. Both options invite the analysis of which valuations triumph, lose, and/or become reconciled, and on what groundings [5,6]. Justification theory has been applied in analysing inter alia the use of urban parks [27] and a media debate on climate change [73].

This paper explores how the different orders of worth are manifested in the research literature concerning the, use, management and governance of Baltic salmon. The articles are viewed as representations that both reflect and take part in defining the values related to Baltic salmon fisheries. In some papers, the authors try to explain and understand the value positions of different fisheries stakeholders, while in other cases they themselves take a certain value position, for example by stressing the primacy of values related to species conservation or

providing advice on the use of economic methods for determining the value of salmon fisheries. However, also in the former case, where authors try to grasp the values of stakeholders, the articles remain representations of reality, because they interpret reality from a specific point of view. They do not holistically portray the views of stakeholders, but cannot be viewed as ideological expressions of the authors either. Still, examining how different values are represented in the articles is relevant, because the articles constitute one important level of publicity through which socio-cultural values are discussed and given shape to.

The reviewed material was obtained from Web of Science and Google Scholar by using the key words ‘Baltic salmon’ AND ‘use’; ‘Baltic salmon’ AND ‘management’; ‘Baltic salmon’ AND ‘governance’. These key words provided in total nearly 3.000 articles, which were further sorted by including titles that referred to management or governance. These were further examined by the manual reading of abstracts. Only those articles that described, discussed or took a stand on the societal importance of this fish species, for example by referring to or exploring conflicts or problems in its use and management, were deemed relevant. By this method, 45 articles were chosen for further analysis. Furthermore, additional material was searched for from the references of those articles. In total, 58 articles, book chapters and research reports were included in the qualitative analysis.

The seven orders of worth were used as analytical categories to be identified from the texts as answers to the questions why or how Baltic salmon is seen as valuable for society. The key words and discourses reflecting these orders of worth were tracked by manual reading of the documents. A method developed by Luhtakallio and Ylä-Anttila [37] for justification analysis was applied. This focuses on claims as the units of analysis. In this case, claims included public requests, suggestions or demands by an actor (either stakeholder or author) in relation to the use or management of Baltic salmon. For each claim, the claimant, the content of the claim and the recipient of the claim were examined. Furthermore, the justification for the claims grounded in the seven orders of worth as well as material and institutional arrangements to support them were identified [37].

### 3. Baltic salmon – a regionally valuable and controversial species

Baltic salmon is one of the keystone fish species of the Baltic Sea. Salmon are born in rivers, migrate to the Baltic Main Basin to feed, and return to spawn in their natal river. During the 20th century, the majority of the Baltic salmon stocks were depleted because of the damming of rivers for electricity production, habitat destruction due to dredging, pollution, and intensive fishing. Stock declines have been addressed by fishing restrictions, stocking, and habitat restoration. In recent years, some stocks have recovered, while the status of several others remains weak or unknown [16].

Baltic salmon is fished by both commercial and recreational fishers. The commercial salmon fisheries are managed mainly at the EU level, while the recreational salmon fisheries are managed at the national level. The EU-level management follows a formalized procedure involving decision makers, managers, scientists and stakeholders, and the main management instrument is the annually decided total allowable catch (TAC). The main stakeholder groups taking part in salmon management at the EU level include commercial fishers, recreational fishers and environmental non-governmental organizations (NGOs). These groups are represented in the Baltic Sea Advisory Council (BSAC), a stakeholder organ that is consulted for management proposals.

Finnish and Swedish fishers utilize the majority of the commercial quotas; in 2015 their share of the total catch was around 70% [16]. Commercial salmon fishing in Finland and Sweden is mostly in the form of a coastal trap net fishery [16]. In some areas it is based on landowners’ usufruct, while in other areas fishers utilize public fishing rights [58]. Fishers are typically self-employed and operate with small boats [53]. Since the 1990s, the commercial catch has decreased [16].

In parallel, the number of fishers has decreased and their average age has increased; for example in Finland 55 to 65-year-olds form the biggest age group [41]. In the coastal areas of the northern Baltic Sea, salmon is also fished for household use, using nets and trap nets, based on landowners’ usufruct.

Recreational fishers target salmon particularly in the rivers, mainly by angling, and to a lesser extent in the sea, by trolling. The scale of the non-commercial salmon fishery has increased since the 1990s, and in 2015 it was estimated to represent over 40% of the total catch [16]. The majority of the recreational salmon fishing is conducted in Sweden and Finland, where the biggest salmon rivers are situated. In smaller and dammed rivers fishers are often local, while in bigger and undammed rivers the majority of anglers can be visitors [1]. In the latter, fishing tourism around salmon is being developed [58]. Recreational salmon fishers are a heterogeneous group varying from occasional anglers to technique and resource specialists [2]. Research data on age, socio-economic status or living area (rural/urban) of the Baltic salmon anglers are limited.

Environmental NGOs, operating both at the national and international scale, have in recent years become more visible actors in fisheries governance [36]. Some of them are engaged or actively seek inclusion in formal governance structures, for example representation in the BSAC, while others have decided to abstain from these structures [36]. The latter prefer other political means, including public campaigns and direct action. In general, the supporters of environmental groups are relatively young, urban and well educated [69].

Scientists, albeit not stakeholders in the strict sense, are also important actors in Baltic salmon management, since all major management proposals are based on scientific assessments. For example TACs are based on stock assessment and the related management advice, prepared by the International Council for the Exploration of the Sea (ICES). The majority of the scientists involved in salmon policy have a natural science background [35].

At the national level, also several other stakeholder groups take part in salmon politics. In Finland and Sweden, particularly people living along the salmon rivers have been active. For some rivers, they have formed associations to defend the environment, the fish stocks and the interests of the people living in the area.

As the multiplicity and diversity of different stakeholder groups may suggest, the management of Baltic salmon has been a highly conflicted issue both at the EU and national level, where different interests and values collide [35,58]. Baltic salmon is seen as a ‘political species’ that divides and pits against each other the interests of geographical areas, urban centres and rural peripheries, river and sea fisheries, commercial and recreational fishers, and conservationists and resource users [35,58]. Conflicts revolve around who, if anyone, should be allowed to fish Baltic salmon, where, when, to what extent and on what grounds. These conflicts are often exacerbated by uncertainties related to stock assessment and management [13,16,34].

### 4. Socio-cultural importance of Baltic salmon

#### 4.1. Civic worth: Centrality of fair management

The literature review indicates that valuing Baltic salmon as a resource that belongs to all, and its management as a question of social justice, is common. Commercial salmon fishers argue that preconditions for their livelihood have worsened because of tightened regulations, and call for solidarity regarding, and recognition of, their way of life. Although the commercial fishers are represented in the BSAC and national fishers’ associations, they perceive their possibilities to influence as limited. The people living along the rivers of the northern Baltic Sea emphasize the existence of their immemorial fishing rights and demand balanced allocation of the resource between the sea and the rivers. Recently, salmon activists living along the Finnish side of the River Tornionjoki have questioned the right of the Finnish government to

salmon fishing in the river, and have demanded the investigation of old judicial documents to find answers to the question of whether the right to salmon fishing really belongs to the state, as it has been thought for centuries, or rather to the landowners [18]. Among people living by current and former salmon rivers, overall, the sense of unfair treatment goes back generations, and relates to governmental decisions that supported activities that led to the decline of several salmon stocks, such as log floating and building hydropower plants [3]. Moreover, they have felt marginalized in policymaking because of limited representation in advisory organs [4,58]. The importance of social justice for fishers became obvious in the study of Haapasaari et al. [13] who found that restricting the fishing of all fisher groups equally instead of targeting restrictions to certain groups was favoured by all salmon fishers and that endorsing initiatives to enhance dialogue between fishers and administration would increase fishers' commitment to the restrictions. Also, the environmental NGOs view Baltic salmon as a common pool resource and claim for themselves better recognition as a stakeholder group in the management of the stocks [35].

Stakeholders' feelings of not being heard despite their formal representation in the EU fisheries management through the BSAC have been explained by their inclusion in the policy process in a very late phase. The BSAC is mainly invited to evaluate ready-made management proposals prepared by the European Commission (EC), whereas the organization or its members are rarely involved in problem framing, objective setting, stock assessment, and identifying and selecting management measures [34]. Better involvement of stakeholders in knowledge generation through participatory science is assumed to be a way to enhance the legitimacy of management decisions [34]. From the perspective of justification theory, participatory science combines civic worth and industrial worth.

#### 4.2. Green worth: carrier of diverse ecological values

As a compromise between green worth and inspirational worth, Baltic salmon is valued as a unique species that at each stage of its life cycle occupies a unique niche; these niches cannot be occupied by any other species. The biological uniqueness of salmon is a central justification for the conservation of the weakened salmon stocks for scientists, environmentalists and the recreational sector [20,29].

The recreational sector compromises green and inspirational worth by linking the importance to conserve the uniqueness of salmon with human enjoyment. For example, 'catch and release' (C&R) fishers seek balance between the wellbeing of nature and humans by releasing their catch voluntarily to preserve the stocks and by stressing the importance of gentle fishing techniques and gear like barbless hooks [39]. However, C&R has been criticized by groups that stress animal welfare and rights. The welfare perspective, which highlights the importance of avoiding unnecessary pain to animals, sees C&R as merry-making that causes suffering, while the animal rights perspective sees salmon as having a right to existence for its own sake [45,55].

Valuing salmon as part of natural heritage to be preserved for future generations represents a combination of domestic and green valuations. These arguments, common among people living by the northern salmon rivers, see salmon and local people sharing the same kind of attachment to the river that dates back generations [3]. Furthermore, traditional river fishing is seen as a sustainable use of the resource, guided by conventional wisdom and natural mechanisms like spring floods [48]. Also, on the other hand, the coastal commercial fishers argue that their fishing practices are compatible with nature because they are seasonal and restricted by environmental conditions [56]. They combine domestic and green justifications by stressing that coastal fishing is a small-scale gathering of natural resources.

Scientists stress the importance of Baltic salmon for the ecosystem and biodiversity, on which also human well-being is dependent. Additionally, wild salmon stocks are regarded as valuable because of their genetic variation. Both valuations combine industrial and green

values: humans must conserve salmon stocks because the decline of the stocks is caused by human actions and because they control knowledge and resources to change the situation [20,51].

#### 4.3. Domestic worth: part of the northern heritage and the traditional fishing occupation

People living by the northern salmon rivers value salmon as part of the local landscape. Also a historical linkage between the migratory patterns of salmon and the early human settlements in river areas has been stressed. Salmon fishing is seen as a bloodline and its continuance as a matter of honour [4,71]. Salmon migrates between the sea and rivers but its home is seen in the river where it is born and returns to reproduce [48]. The heritage value of salmon is visible in the material and symbolic environment, such as the architecture of villages, the local dialect, food culture and celebrations [3,71]. River fishing has modernized towards tourism, which is considered a counterforce against depopulation and is therefore vital for rural communities. Fishing tourism, dominated by small family-owned enterprises, combines domestic and market worth [47,58].

Landowners in the coastal and river areas of the northern Baltic Sea emphasize the significance of their inherited usufructuary rights, some of them arguing that the state should not prevent their long traditions of local resource management [18,54]. These rights may also underlie their local identities [71].

Coastal salmon fishing has also left its marks in the culture of the northern Baltic Sea areas where salmon fishing once was a prominent livelihood [71]. In the first half of the 1900s, salmon became important not only for landowners but also for the working class of the coastal areas, as landowners hired landless people for fishing and fishing-related activities [57]. Today, commercial fishers consider that they benefit society by providing local food and by keeping the coastal culture alive. The fishing profession in the northern Baltic Sea typically functions on a small scale and is closely linked to the traditional way of life. Peasant modes of life, continuance, and strong ties to local communities have been emphasized [56,59].

#### 4.4. Inspirational worth: emotional attachments and recreational importance

Inspirational valuations are common in the arguments of the recreational fishing sector and people living by the salmon rivers, but also the inhabitants of the coastal areas may structure their relationship with nature through salmon [60]. Baltic salmon has been characterized as 'strong and wise animals, almost as equals' [4]. The humanization of salmon may relate to its migration instinct: salmon 'values' its birthplace in the same way as humans. Also, human sentiments and masculinity have been attached to salmon [19,3].

Historically, salmon has had even a religious worth; animistic worshipping of salmon related places and statues lasted until the 19th century [71]. Also today, people living by the salmon rivers assign aesthetic values to salmon and stress the importance of sensory experiences, such as seeing a salmon jumping in the undammed rapids as well as excitement and physicality related to fishing activities [4].

For recreational fishers salmon is important because it provides pleasure, exciting challenges and experiences of freedom [2,58]. However, diversity among recreational fishers is growing in terms of techniques and equipment as well as motivations and objectives [39]. In particular, the fly-fishing culture seems to draw from the inspirational worth of salmon since it downplays the nutritional importance of the catch, and stresses the dedication of enthusiasts to the fishing activity [39,47,49]. Especially the younger generations seem to focus on self-realization and other immaterial aims in their fishing activities, while the older ones still emphasize the importance of using the catch for food [67]. Every river is perceived as a unique challenge where knowledge of the environment, the species and the catching techniques



are refined into new skills in order to anticipate the rhythm of nature [49].

#### 4.5. Worth of fame: Salmon as a symbol

According to worth of fame, Baltic salmon is valuable because it is well known and respected: salmon is among the most often mentioned fish when asked which fish species Finnish people recall by name [42]. In the northern Baltic Sea, salmon seems to enjoy almost mythical popularity, and salmon fishing is labelled as a precious activity [19]. The symbolic importance of salmon is present in folk art and the coat of arms of several regions and municipalities of Finland and Sweden. Salonen [60] has noted that old symbols of salmon, such as salmon as ‘the king of fishes’ are often used to legitimize economic, political and scientific aims.

Baltic salmon is increasingly attached to nature conservation and recreation, whereas its image as food has suffered from the public discussion and campaigning by environmental groups about the precarious state of the wild stocks [19,58]. Nowadays consumers in the Baltic Sea countries mainly eat salmon reared in the Norwegian fish farms; the cheap ‘Norwegian salmon’ determines market value also for the Baltic salmon [42,45]. The natural origin and ‘wildness’ of Baltic salmon has not been able to increase its market value above the farmed Atlantic salmon [45].

However, the conceptions of wildness and authenticity do seem to increase the image value of Baltic salmon as recreational catch, although in many rivers maintaining the salmon stock depends on stocking [45,60]. Renown related to Baltic salmon seems to be particularly important in the northern Baltic Sea area, and is increasingly linked to rural tourism [49,58,60]. The River Tornionjoki is considered the most important river for salmon angling in the Baltic Sea area [56].

#### 4.6. Market worth: the economic value of salmon under dispute

Money is frequently used to compare the different usages of salmon [28–30,64], and both the commercial and the recreational salmon sectors utilize market justifications to gain public support.

The recreational sector argues that the economic value of salmon is higher in the rivers as part of tourism than in the commercial sea fishery [14,49,58]. The commercial fishers consider these claims an insult to their pride as domestic food producers. Although the economic value of the commercial salmon catch has decreased, the commercial fishers argue that they diversify fish markets by providing local food [14,29,58,64]; justification theory sees this as a compromise between market worth and domestic worth.

There seems to be, however, no consensus on how to measure the economic value of the salmon fishery. The economic value of recreational salmon fishing has been investigated with contingent valuation methods [2,1,46], and the economic impacts of fishing tourism by using the expenditure method [21]. Bio-economic models have been developed for the optimal management of salmon stocks [28,30]. These studies combine market valuations with industrial valuations that stress the importance of utilizing resources in a scientifically justified way. The increased use of economic analyses for the evaluation of the legitimacy of environmental decisions has been criticized for creating a bias in favour of expressions of worth based on price and efficiency. Stakeholders utilize these analyses to gain resonance for their claims in decision making, although other valuations may be more important to them.

#### 4.7. Industrial worth: the Declining importance as a production resource

Industrial worth sees Baltic salmon as a resource that must be quantified, controlled and projected by experts. Baltic salmon is still viewed as a resource for commercial fishing communities, but to a lesser extent as seasonal food [11,42]. On the contrary, the salmon

stocks are increasingly valued as a resource for recreational fishing and tourism [11,60].

Industrial rationality in terms of scientific methods guides the management of Baltic salmon stocks, whereas fishers’ experiential and practical knowledge is rarely taken into account [56]. The main management tool has been the TAC, which is set annually for all Baltic salmon stocks without differentiating between the strong and the weak stocks. The multiannual management plan prepared by the EC is taking a more differentiated management approach to the different stocks by aiming to safeguard their genetic integrity and diversity, and by setting targets for smolt production and for the achievement of maximum sustainable yield for each stock [10]. While preparing the multi-annual plan, the EC consulted stakeholders, which is a sign of an increased importance of civic values in addition to the industrial ones [10]. Still, the stakeholders felt that they were not heard and that their perspective was subordinated to problems relating to scientific data and stock assessment [35].

### 5. Discussion

The aims of this paper were to explore how salmon related values can be organized according to the justification theory and to discuss the potential of the approach for fisheries governance, in terms of providing a structured tool for identifying fisheries related values and facilitating deliberation on them. The literature review suggests that all orders of worth are applicable to Baltic salmon, but that their importance for different stakeholder groups varies. Fig. 1 illustrates the values often attached to Baltic salmon in the research literature and the stakeholders that are seen to hold these values.

According to the literature, some values, for example fairness of management, are important for all stakeholders, while others, for example salmon related traditions, are important for only some of them. However, although the importance of certain values is agreed upon at a general level, their meaning for different groups may still be different, and require further, empirical analysis. For example, although all stakeholders value salmon as part of the ecosystem, they seem to place a different value on the genetic diversity of the salmon. Examination of these different meanings by, for example, interviewing different stakeholders could be a beneficial starting point for building a constructive dialogue between the stakeholders. It could help to explicate the importance of salmon for stakeholders themselves and also open up understanding of the values of others. Since Baltic salmon management has been conflictual, making the value-positions of different groups more transparent instead of leaning on guesswork and prejudice concerning the motives of others could help in building meaningful dialogue.

Knowledge of the values that stakeholders attach to a fishery is essential for problem framing and objective specification in management. Understanding why a fishery matters to different user groups could help in the making of decisions that these groups find acceptable. In the case of Baltic salmon, it might be useful to note that market-based management measures, which are gaining popularity around the world and are also discussed also in the CFP, may not be an adequate a solution for a fishery, which is also important for several other than economic reasons.

Justification theory suggests shifting attention from opposing interests to the common good in governance. It also enables power differences between stakeholders to be addressed by imposing a need to justify each claim by referring to the common good. However, to be considered a legitimate reference to the common good, a claim also needs to be backed up by sufficient material or institutional facts. For example, a claim that certain salmon fishing related traditions are particularly important for local culture in this and not that area needs proof for example from historical documents, ceremonies, customs and narratives. Likewise, a claim that some groups are unjustly treated needs to be backed up by concrete reference to current institutional

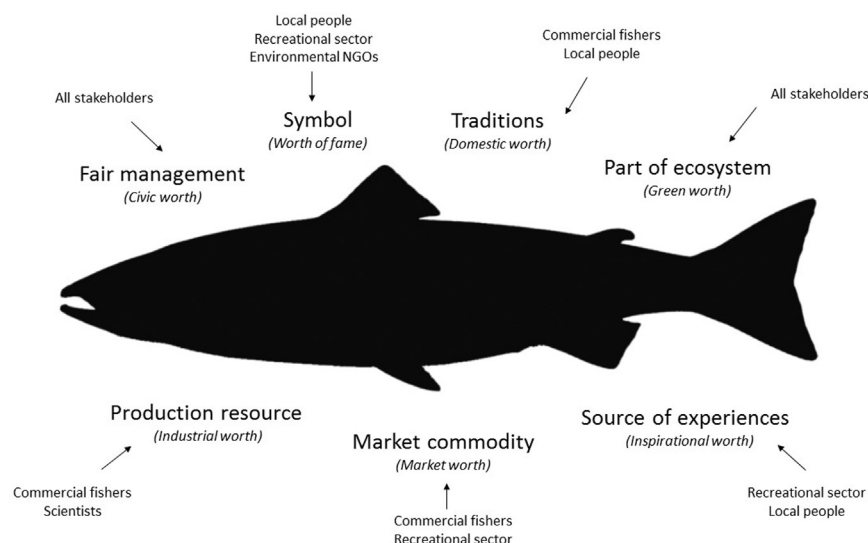


Fig. 1. The socio-cultural value of Baltic salmon according to different orders of worth.

practices and/or management decisions. Thus, justification theory relies more on the power of a good argument than the influence of powerful persons. Indeed, the requirement of backing up one's claims by referring to facts is essential for assessing whether someone is advancing the common good or hiding his/her interests behind the façade of the common good. This enables other people to assess the appropriateness of the claims. Essentially, the evaluation of whether someone advances the common good or not is a social process that depends on the judgement of others as well as an inclusive deliberative process instead of the interpretation of an individual him/herself.

The theory invites stakeholders to consider what is beneficial for all and to adapt their personal interests to that. Thereby it may help to redirect the current 'culture of not agreeing' [34] towards an ethos that enables the building of a shared understanding. This entails expanding the focus of governance from ways of managing the stocks to reasons for managing them. Following Kooiman and Jentoft [25], it means taking discussions to the level of meta-governance, where the legitimacy of governance is discussed and evaluated. Kooiman and Jentoft [25] suggest that any rational governing process should start and end with a reflection on and deliberation of basic values, concerns and principles in a process of inclusion, communication and cooperation. Overall, a structured discussion on values in different phases of a management process might be a way for all actors to learn from each other, to consider what management decisions might imply for different groups, and further, to build consensus. This way justification theory could facilitate efforts to integrate social dimensions into the ecosystem-based management of fisheries.

However, since the common good can be defined in multiple ways, these definitions have to be made transparent and explicit so that they can be further deliberated, understood, evaluated and agreed upon by governors, stakeholders and others involved. Therefore a bottom-up approach is needed, in which definitions of the common good are qualitatively examined. In-depth stakeholder interviews, in which seven orders of worth serve as themes for discussion, could be one feasible option to begin with.

## 6. Conclusions

The justification theory was found to be a promising approach for the identification of different socio-cultural values related to fish and fisheries because it helped to articulate different values in terms of the common good instead of opposing interests, and it thus opened up a deliberative space, where these different definitions can be further examined, evaluated and agreed upon to enhance the legitimacy of

governance. However, a literature review is not enough for the assessment of the overall feasibility of the theory for fisheries governance, and therefore further empirical research is needed. To examine the values that different stakeholders attach to Baltic salmon and the relative importance of these values, the next step is to conduct a qualitative interview study in different Baltic Sea countries. Based on this, the usability of the justification theory in empirical and comparative terms will be elaborated, and ways to incorporate values in governance further discussed.

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